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January 25, 2000

Commissioner  
Patent & Trademark Office  
Washington, D.C. 20231

**EXPRESS MAIL**  
No. EE706148454US

Dear Sir:

Please file the following enclosed patent application papers:

Application: LYNCH, MICHAEL

Title: BIRD GUARD

- ( ) Specifications, claims, abstract: \_\_\_\_\_ sheets.
- ( ) Declaration date signed: JANUARY 14, 2000
- ( ) Drawings: Sheets: Formal \_\_\_\_\_ Informal \_\_\_\_\_  
Page 1=FIGS 1,2,3,4 Page 2=FIGS 5,6,7
- ( ) Small entity request

## Fee

Filing fee (Small Entity X) \$345.00

Independent claims in excess of three \_\_\_\_\_ x \$30 \_\_\_\_\_

Claims in excess of twenty \_\_\_\_\_ x \$10 \_\_\_\_\_

TOTAL \$345.00

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and please return the receipt postcard addressed to applicant, which is enclosed.

Sincerely,

*Brian C. Kelly*  
Brian C. Kelly, J.D., L.L.M.  
Registration Number 32249

BCK:fkf  
Encl.

00490903-012500

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Postal Service at Reno, Nevada, a true, and complete copy of the patent application entitled:

and it is to be considered as having been filed in the office on the date it is deposited as "Express Mail," No. EE706148454US, with the U.S. Postal Service, postage prepaid, and properly addressed to:

*Brian C. Kelly*  
 Brian C. Kelly, Reg. No. 32,249

Dated: 1/25/00

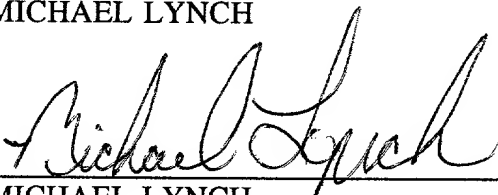
Variable	Mean	SD	Min	Max
Age	45.2	12.5	25	65
Gender	1.2	0.4	1	2
Education	12.5	2.1	9	16
Income	3500	1500	1000	8000
Health	2.5	0.8	1	4
Stress	3.2	1.1	1	5
Depression	1.8	0.9	1	4
Life Satisfaction	4.1	1.3	1	7
Work Satisfaction	3.8	1.2	1	7
Family Satisfaction	4.5	1.4	1	7
Community Satisfaction	4.2	1.3	1	7
Overall Satisfaction	4.3	1.3	1	7

**REQUEST FOR SMALL ENTITY STATUS PURSUANT**  
**TO 37 C.F.R. 1.27 AND 1.9(F)**

Applicant, MICHAEL LYNCH, verifies by this writing that he is acting as a qualified sole inventor pursuant to 37 C.F.R. 1.9(c) and is the sole inventor of the enclosed design patent application entitled: BIRD GUARD and, therefore, has enclosed the proper fees for filing such application as a small entity.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FULL NAME OF SOLE INVENTOR: MICHAEL LYNCH

  
MICHAEL LYNCH

Dated: 1/14/00

Residence: WASHOE COUNTY, NEVADA

Citizenship: United States

7758 Pickering Circle  
Reno, NV 89511

Parameter	Unit	Value
Mean (SD)		10.5 (1.2)
Median		10.0
Mode		10.0
Range		8.0-12.0
Interquartile range		9.0-11.0
Skewness		0.5
Kurtosis		1.0
Correlation coefficient		0.8
Regression equation		$y = 0.8x + 1.2$
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Confidence interval		95%
Significance level		0.05
Power		0.8
Effect size		0.5
Reliability		0.9
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Generalizability		0.7
Feasibility		0.6
Ethical approval		Yes
Consent		Yes
Follow-up		Yes
Dropouts		0
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Refusal		0
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Feasibility		96%
Ethical approval		Yes
Consent		Yes
Follow-up		Yes
Dropouts		0
Loss to follow-up		0
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Refusal		0

TO ALL WHOM IT MAY CONCERN:

Prepared By: BRIAN C. KELLY

EE706148454US

## **BIRD GUARD**

### **Background-Field of Invention**

This invention relates generally to the field of high powered transmission lines.

### **Background of Invention**

For nearly a century man has been stringing high powered transmission lines from pole to pole to pole top. Wild birds have seen these lines as convenient places to roost. There have been instances throughout the West where a flock of black birds will leave a line nearly simultaneously and cause a dangerous swinging condition in the line. Also, right where the line attaches to the insulator above a pole, if the bird stretches its wings, like it will just before take off and that wing either contacts or comes close enough to contacting the pole or another line; the bird can become a shunt and the power might arc through the bird, killing it and disrupting power transmission. Applicant's invention overcomes these problems by discouraging birds from standing on the line and insulating them if they or their squirrel or chipmunk friends climb around poles insulators and lines.

### **Summary & Objects of the Invention**

A first object of the invention is to provide an insulator to insulate a wild creature from the power in the line.

A second object of the invention is an attachment means that can be applied to a hot (charged) line.

A third object of the invention is a sequential system to allow building of a cover for

certain applications, like over a building entrance.

A fourth object of the invention is a deterrent system to deter birds from alighting on the wire.

### **Brief Description of Drawings**

**Fig. 1** is a perspective view of the invention.

**Fig. 2** is an end view of the invention.

**Fig. 3** is a side view of the invention.

**Fig. 4** is a sectional side view of the invention.

**Fig. 5** is a perspective view of an alternative embodiment of the invention.

**Fig. 6** is an end view of the alternate embodiment of the invention.

**Fig. 7** is an exploded view of portion of alternate embodiment.

### **Description of Preferred Embodiment**

**Fig. 1** shows a perspective view of a bird guard **1** installed on a wire **2** over an insulator atop a support **4**. The bird guard includes a substantially cylindrical member **5** with a gap **6** for fitting over the wire **2** as shown in **Fig. 2**. The cylindrical member **5** has a substantial notch **7** for accommodating different insulator **3** designs. Tails **8** are attached to the cylindrical member **5** to secure the bird guard **1** to the wire **2**. The tails **8** are wrapped around the wire **2**. They are pre-formed into a helix. Tails **8** can be attached with a hot stick to protect the installer from a charged line. The tails **8** are attached to the cylindrical member **5** by a nonconductive fastener **9**.

**Fig. 2** shows an end view of the invention and details the gap **6** that allows the device to be installed over existing wires **2**.

**Fig. 3** shows a side view which highlights the notch **7** for going over the insulator **3**.

**Fig. 4** shows a sectional view with the insulator in phantom. In installation the gap **6** is slightly offset from being directly below the line. This orientation provides some lift protection from wind gusts.

**Fig. 6** shows another embodiment of the invention. The invention described above provides a device for insulating the bird or other creature from the wire **2** so that they do not become the arc point and get injured or more likely killed. The alternate embodiment discourages birds, squirrels or other creatures from lighting on the wire **2** by including vertical spikes **10** attached to the cylindrical member **5** with holes **11** for receiving fasteners **12**.

This invention also contemplates using multiple guards to cover longer spans if necessary by twisting a tail **8** under a cylindrical member **5** at the point where a tail would be attached and merely attaching a tail at each end.

Obviously, numerous (additional) modifications and variations of the present invention are possible in light of the above teachings. It is, therefore, to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described herein.

## CLAIMS OF THE INVENTION

What is claimed is:

1. An apparatus for protecting animals from contacting power lines comprising:  
a cylindrical member for engaging a wire and attachment means for attaching said cylindrical member to said wire.
2. An apparatus as described in Claim 1 wherein said cylindrical member comprises a dielectric material.
3. An apparatus as described in Claim 2 wherein said dielectric material comprises a polymer material.
4. An apparatus as described in Claim 1 wherein said attachment means comprises at least one helical member for wrapping around said wire thus limiting movement of said cylindrical member.
5. An apparatus as described in Claim 4 further comprising voids in said cylindrical member for accommodating an insulator as commonly disposed on a power pole.
6. An apparatus as described in Claim 4 further comprising at least one pipe attached to said cylindrical member.
7. An apparatus as described in Claim 6 further comprising at least one group of spikes disposed perpendicularly to a longitudinal axis of said cylindrical member.



## ABSTRACT

A dielectric device for protecting animals from becoming a short between power lines and poles or other lines.

In an alternate embodiment the device includes prongs to deter birds from landing on the protection device.

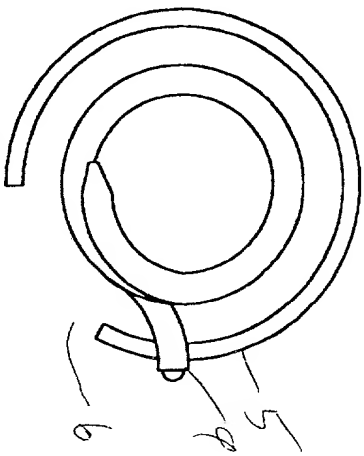


Fig. 2

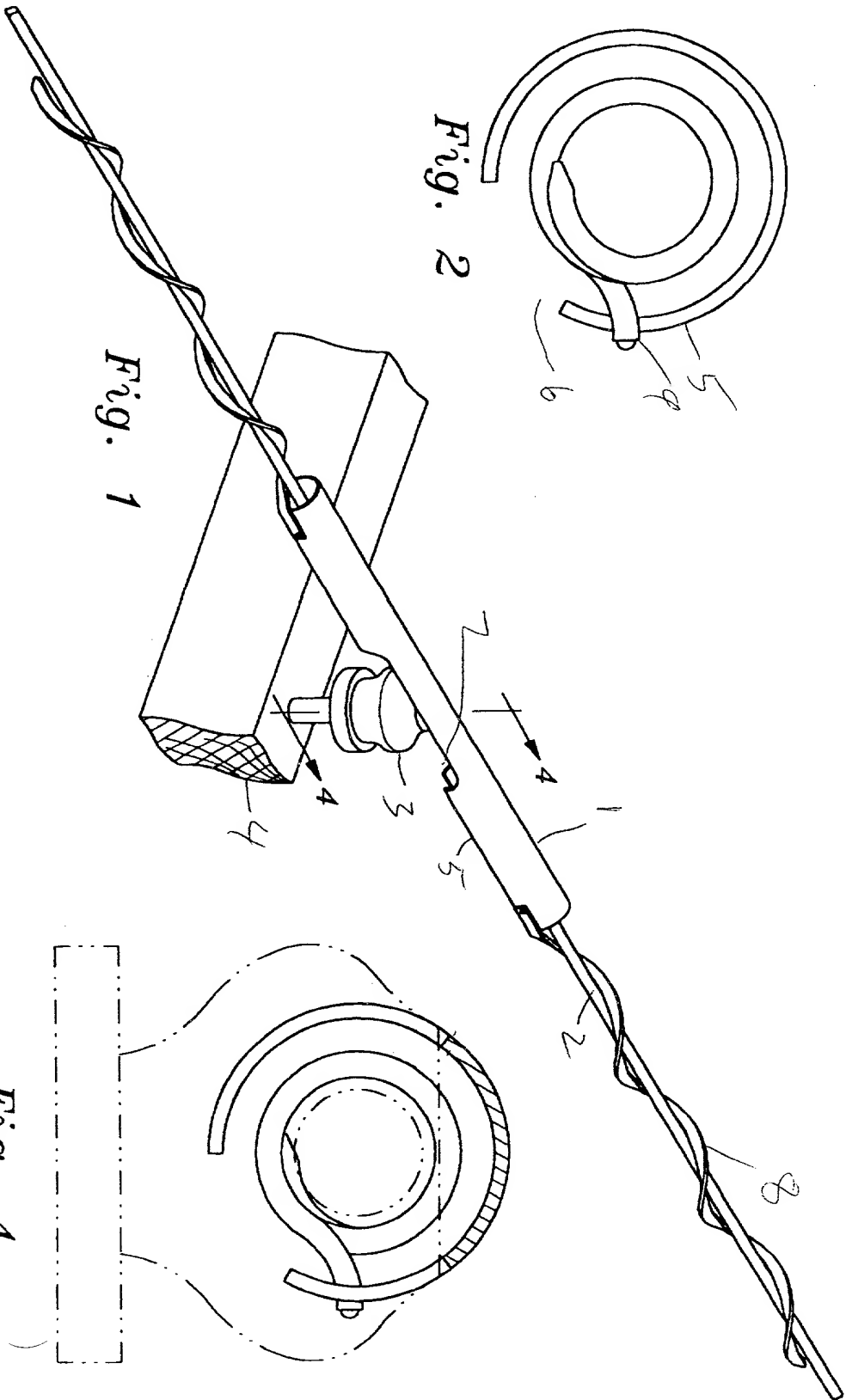


Fig. 1

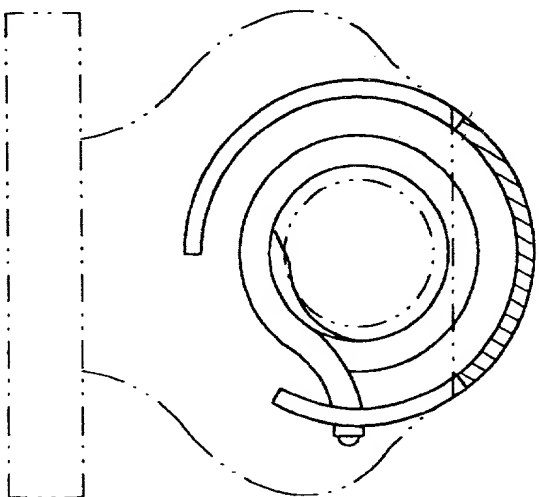
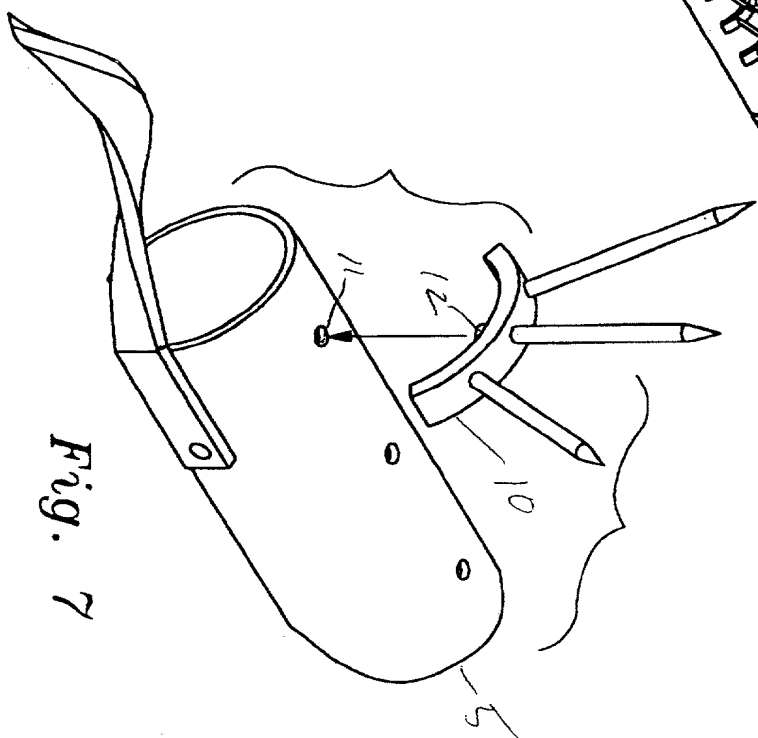
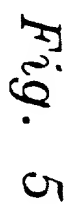
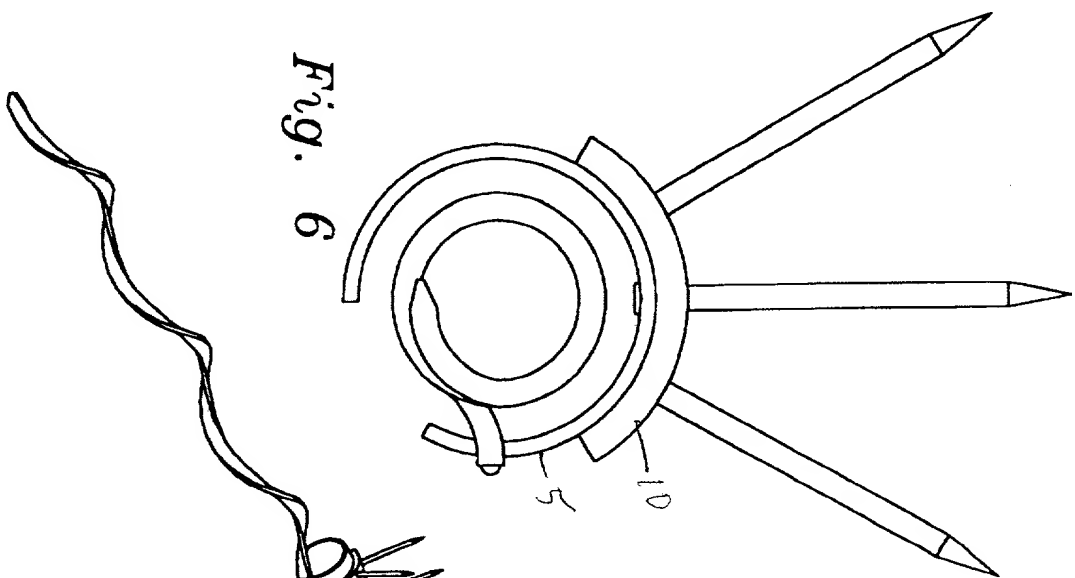


Fig. 4



Fig. 3

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**DECLARATION AND POWER OF ATTORNEY FOR PATENT  
APPLICATION**

As a below-named inventor, I hereby declare that: My residence, post office address and citizenship are as stated below next to my name, I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a design patent is sought on the invention entitled BIRD GUARD, the specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, code of Federal Regulations, Section 1.56(a).

POWER OF ATTORNEY: As a named inventor, I hereby appoint Brian C. Kelly, Registration No. 32,249, as my attorney to prosecute this application and transact all business in the Patent & Trademark Office connected therewith.

SEND CORRESPONDENCE TO: Brian C. Kelly  
Hawkins, Folsom & Muir  
One East Liberty St., Suite 416  
Reno, Nevada 89501

DIRECT PHONE CALLS TO: Brian C. Kelly, (702) 786-4646.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FULL NAME OF INVENTOR: MICHAEL LYNCH

  
MICHAEL LYNCH

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